ASSISTANT CIVIL ENGINEER
ASSOCIATE CIVIL ENGINEER

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are **not** intended to reflect all duties performed within the job.*

DEFINITION

To perform a variety of complex professional engineering work in the design and management of public works capital improvement projects; to prepare a variety of engineering documents, drawings and specifications; and to perform a variety of professional engineering tasks relative to assigned area of responsibility.

DISTINGUISHING CHARACTERISTICS

Assistant Civil Engineer - This is the entry level class in the professional Civil Engineer series. This class is distinguished from the Associate Civil Engineer by the performance of the more routine tasks and duties assigned to positions within the series. Since this class is typically used as a training class, employees may have only limited related work experience.

Associate Civil Engineer - This is the full journey level class within the professional Civil Engineer series. Employees within this class are distinguished from the Assistant Civil Engineer by the performance of the full range of duties as assigned. Employees at this level receive only occasional instruction or assistance as new or unusual situations arise, and are fully aware of the operating procedures and policies of the work unit. Positions in this class are flexibly staffed and are normally filled by advancement from the Assistant Civil Engineer level, or when filled from the outside, have prior experience. This class is distinguished from the Senior Civil Engineer in that the latter performs the most difficult and responsible duties assigned to the classification including management of the most complex engineering projects or exercising lead direction over lower level staff.

SUPERVISION RECEIVED AND EXERCISED

Assistant Civil Engineer

Receives immediate supervision from higher level management or supervisory staff.

Associate Civil Engineer

Receives general supervision from higher level management or supervisory staff.

ESSENTIAL AND MARGINAL FUNCTION STATEMENTS - *Essential and other important responsibilities and duties may include, but are not limited to, the following:*

Essential Functions:

1. Perform a variety of professional engineering duties in support of capital improvement projects including road construction, stormdrains, sewers, traffic systems and related construction projects.

2. Perform initial design studies for capital improvement projects; prepare project plans, drawings specifications, cost estimates and project schedules.

Essential Functions:

3. Participate in the preparation of requests for proposals and bids; review contract bids and proposals; participate in the review of contractor work activities; ensure contract compliance with contractual obligations.

4. Conduct field inspections of capital projects during construction; ensure compliance with applicable codes and regulations; provide resolutions to construction problems.

5. Perform a variety of engineering calculations and computations; prepare project cost analyses.

6. Inspect construction work for proper grading, concrete quality and placement, forms placement, sub-grades and finish, surfaces for compaction, proper materials and elevation.

7. Prepare final designs and as-built drawings for capital improvement projects including roads and drainage, water and sewer facilities and systems.

8. Prepare and examine maps, deeds, legal descriptions and other documents for land acquisition and easements.

9. Exercise professional engineering judgment in accordance with current accepted practice of civil engineering and appropriate laws and codes.

10. Maintain a variety of engineering and project files and records.

Marginal Functions:

1. Attend and participate in professional group meetings, stay abreast of new trends and innovations in the field of civil engineering.

2. Perform related duties and responsibilities as required.

QUALIFICATIONS

Assistant Civil Engineer

Knowledge of:

Basic operations, services and activities of assigned municipal engineering program.
Principles and practices of civil engineering.
Methods and techniques of preparing engineering drawings, plans, sketches and specifications.
Methods and techniques of engineering design and construction.
Advanced mathematical principles.
Pertinent Federal, State and local laws, codes and regulations.

Ability to:

Learn methods and techniques of engineering construction.
Learn principles and practices of construction project management.
Learn to ensure project compliance with appropriate Federal, State and local rules, laws and regulations.
Learn to coordinate phases of construction projects and prepare progress reports.
Ability to:

Develop, review and modify civil engineering plans, designs and specifications.

Communicate clearly and concisely, both orally and in writing.
Establish and maintain effective working relationships with those contacted in the course of work.
Maintain physical condition appropriate to the performance of assigned duties and responsibilities.

Experience and Training Guidelines
Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

Experience:

Two years of increasingly responsible civil engineering experience.

Training:

Equivalent to a Bachelors degree from an accredited college or university with major course work in civil engineering or a related field.

License or Certificate

Possession of, or ability to obtain, an appropriate, valid driver's license.

Possession of, or ability to obtain, an Engineer in Training (EIT) certificate.

Associate Civil Engineer

In addition to the qualifications for Assistant Civil Engineer:

Knowledge of:

Methods and techniques of engineering project management.
Principles and practices of project and construction management.

Ability to:

Ensure project compliance with appropriate Federal, State and local rules, laws and regulations.
Coordinate phases of construction projects and prepare progress reports.

Experience and Training Guidelines
Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

Experience:

Three years of increasingly responsible civil engineering experience.

Training:

Equivalent to a Bachelors degree from an accredited college or university with major course work in civil engineering or a related field.

License or Certificate

Registration as a Professional Civil Engineer in the State of California.

WORKING CONDITIONS

Environmental Conditions:

Office and field environment; travel from site to site.

Physical Conditions:

Essential functions require maintaining physical condition necessary for sitting, standing and walking for prolonged periods of time and operating motorized vehicles.